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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,658	10/06/2003	Don E. Bray	ABRAY.0109	4113

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EXAMINER	
FAYYAZ, NASHMIYA SAQIB	

ART UNIT	PAPER NUMBER
2856	

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	**Application No.** 10/679,658	**Applicant(s)** BRAY ET AL.
	Examiner Nashmiya S. Fayyaz	**Art Unit** 2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _14 April 2005_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

4a) Of the above claim(s) _13-16_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-12 and 17-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Election/Restrictions

2. Applicant's election of Group I in the reply filed on 4/14/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

3. Claims 13-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invetion, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/14/05.

Claim Rejections - 35 USC § 103

4. Claims 1, 3-7, 9-12, 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jp- 279856 (Hideaki) (please see translation) in view of Nicolas- U.S. Patent # 4,680,966. As to claims 1, 3-7, 9-12, 17, 19 and 20, Hideaki discloses an ultrasonic material testing device for measuring sound velocity in a columnar or cylindrical material including a frame (2e/3e/4),

transmitting probe 2a attached to the frame via shoe 2b for emitting a longitudinal wave across a chord of the curved specimen, a receiving probe 3a attached to the frame via shoe 3b and a data processing system (clock pulse P, counter C and gate circuit G for calculating travel time t which is compared to the propagation time periods preliminarily measured, i.e. expected time where it is indicated that the sound velocity changes are used to detect changes in the material, see translation pp.1-7 and figs. 1-5. However, it is noted that Hideaki fails to indicate that the receiving probe has a frequency lower than the transmitting probe. In a related prior art device, Nicolas discloses an apparatus for examining an object by employing a transmitter 10 and a receiver 20 for nondestructive testing by measuring traveling times of waves, see col. 1, lines 6-20 and col. 2, lines 4 et seq. Further, it is indicated that it is advantageous to use transmitting/receiving transducer whose resonant frequency is higher than that of the receiving transducer so that objects examined by the ultrasonic waves have a low-pass filter effect. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have employed a receiving transducer with a lower resonant frequency than the transmitting transducer as taught by Nicolas for a receiving transducer having optimum operation is obtained if the difference between the resonance frequencies is suitably chosen, see col. 3,lines 40-48. Further, Hideaki lacks a teaching for testing *polymeric* materials. Furthermore, official notice is taken that polymeric pipes i.e. polymeric cylindrical materials are old and well-known. Also, Hideaki does teach testing any cylindrical or columnar material using this method/apparatus, therefore it is believed that it would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the Hideaki teaching for testing to any type of cylindrical or columnar material including "polymeric" materials since the principles of operation that have been applied are applicable to any type of material of the shape given. As to claims 3,9 and 19, note that steel beam 4 appears to have a scale for allowing adjustment of the positioning of the probes and the beam 4 is recited as calibrated and the distance d can be read, see p. 5-6 translation. As to claims 4,10 and 20, note again Nicolas who indicates varying the frequencies between the transmitter and receiver as indicated above. As to claims 5 and 11, Hideaki employs shoes 3a and 3b but lacks a suggestion of the material of the shoes. Therefore, since usage of silicon materials for coupling is old and well-known, the usage of silicone cores is considered a matter of design choice that would have been obvious to one of ordinary skill in the art at the time of the invention to have included as the coupling material and such a selection would obviously be based on the type of material being tested. As to claims 6 and 12, containers are known to be cylindrical. As to claim 17, note discussion above with respect to claims 1 and 7, and further note that since Hideaki teaches testing of cylindrical materials, and tanks are known often to be cylindrical, therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have employed the Hideaki method/apparatus of testing cylindrical materials to any cylindrical item including polymeric tanks since the principles of operation would be applicable.

5. Claims 2, 8, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hideaki as applied to claims 1, 3-7, 9-12, 17, 19 and 20 above, and further in view of Larue et al.- U.S. Patent # 5,507,183. As to claims 2,8 and 18, Hideaki appears to lack a teaching for a thermocouple to measure temperature changes and compensate for any errors caused by such and indicates testing in a high temperature atmosphere, see p.2 of translation. Further, in a related prior art device, Larue et al. disclose a method and apparatus for detecting conditions of a structure by monitoring the time of flight of ultrasound and further include a temperature probe 24, se col. 4, lines 19-25. Inclusion of such a temperature probe would have been obvious to one of ordinary skill in the art at the time of the invention in order to compensate for changes in velocity due to temperature which is a known problem existing in ultrasonic testing, see col. 4, lines 63 et seq.

Response to Arguments

6. Applicant's arguments with respect to claims 1-12 and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nashmiya S. Fayyaz whose telephone number is 571-272-2192. The examiner can normally be reached on Mondays and Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

NFayyaz
Examiner
Art Unit 2856

nf
6/20/05